KVM-1008JOSD / KVM-1016JOSD

8 port / 16 port

19” 1U RACK MOUNTABLE

PS/2 Daisy Chain KVM SWITCH

(Uplink with MU-116/108 Over-IP KVM Switch)

USER’S MANUAL

Rev 1.0

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Introduction

Thank you for purchasing KVM switch. KVM switch can save your MONEY, TIME, SPACE, EQUIPMENT and POWER.

Controlling multiple PCs from One Keyboard, Mouse and VGA Monitor. KVM switch is loaded with features such as 19" Rack Mount Size, Daisy Chain up to eight units, On Screen Display Menu, Password security, searching PC server name, Hot key Control, Push Button and Auto Scan Control. It has complete keyboard and mouse emulation for simultaneous PCs boot-up process.

Features

- 8/16 port KVM switch is 19" rack mount size design.
- Support Microsoft Intellimouse, Microsoft Intellimouse Explorer, Logitech Net Mouse or the other fully compatible MS mouse.
- Support DOS, Win3.X, Win95/98/98SE/2000/ME/XP, WinNT, Netware, Unix, Linux
- Support iMAC, Power MAC and Sun Microsystems with USB port (Need work with USB-PS/2 adapter)
- Hot Plug - Add PCs or Remove Connected PCs for Maintenance without Powering Down the KVM switch or PCs.
- Very High Video Quality - Up To 1920X1440, Bandwidth: 200MHz
- No Software Required - easy PC selection via On Screen Display Manual, Push Buttons, Hot Keys
- Support eight characters password protection and search PC server name
- Auto Scan Mode for monitoring PCs and flexible Scan time from 5~99 seconds
- Keyboard status restored when switching PCs
- LED Display for easy status monitoring
- Buzzer sound for switching port confirmation.
- Built-in one extra daisy chain port and no waste any PC port
- No DIP switch setting needed and auto detect daisy chain bank

Package Contents

Model No.: 8 port slim Rack Mount KVM Switch

8 port PS/2 KVM Switch	1 PCS
User's manual	1 PCS
AC to DC Power Adapter	1 PCS
Rack Mount Kit	1 SET
Daisy Chain Cable	1 SET

Model No.: 16 port slim Rack Mount KVM Switch

16 port PS/2 KVM Switch	1 PCS
User's manual	1 PCS
AC to DC Power Adapter	1 PCS
Rack Mount Kit	1 SET
Daisy Chain Cable	1 SET

Technical Specifications

Model No.	4 port slim Rack Mount KVM Switch	8 port slim Rack Mount KVM Switch	16 port slim Rack Mount KVM Switch
PC Port	4	8	16
Console Port	1	1	1
PC Port Connector (All Female Type)	VGA HDDB 15pin (shared with PS/2 keyboard and Mouse)		
Console Port Connector (All Female Type)	PS/2 Keyboard Mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15pin		
Daisy Chain Port Connector (All Female Type)	PS/2 Keyboard mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15pin		
PC selection	On Screen Display Menu, Hot Key, Push Button		
PC Port LED(on line)	1	1	1
Bank 7 segment LED	1		
On Screen Display Control	Yes		
Scan Intervals	5~99 Sec.		
Keyboard Emulation	PS/2		
Mouse Emulation	PS/2		
VGA Resolution	1920X1440		
Bandwidth	200MHz		
Daisy Chain MAX Level	8 levels		
MAX PC Connection	116	120	128
Housing	Metal		
Power Adapter	DC 12V, 1 A or 9V 500mA		
Operation Temperature	0~50℃		
Storage Temperature	-20 ~ 60℃		
Humidity	0~80%, Non-Condensing		
Size	19” Rack Mount / 1RU	19” Rack Mount / 1RU	19” Rack Mount/ 1RU
Weight (kg)	1.9kg	2.0kg	2.2kg
Dimension (cm)	41(L) X 16.5(W) X 4.4(H)	41(L) X 16.5(W) X 4.4(H)	41(L) X 22.5(W) X 4.4(H)

System Requirements

Specifications:

Model No.	4 port Slim Rack Mount KVM Switch
Console side	One VGA Monitor One PS/2 Keyboard One PS/2 Mouse
Computer side	4 HDDB 15 pin male to one HDDB 15 pin and Mini Din 6 pin special cables

Model No.	8 port Slim Rack Mount KVM Switch
Console side	One VGA Monitor One PS/2 Keyboard One PS/2 Mouse
Computer side	8 HDDB 15 pin male to one HDDB 15 pin and Mini Din 6 pin special cables

Model No.	16 port Slim Rack Mount KVM Switch
Console side	One VGA Monitor One PS/2 Keyboard One PS/2 Mouse
Computer side	16 HDDB 15 pin male to one HDDB 15 pin and Mini Din 6 pin special cables

Cable Diagrams

PC Port Special Cable:
HDB15 pin male to one HDDB 15 pin male and Mini Din 6 pin special cables

AT to PS/2 keyboard adapter: (Optional)
Din 5 pin Male to Mini Din 6 pin Female

Daisy Chain Cable:
PS/2 Cable:
Mini Din 6 pin Male to Male

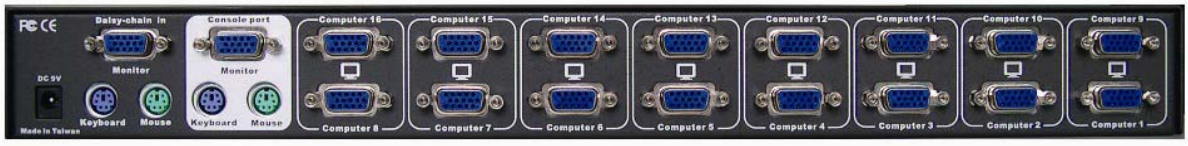
VGA Cable:
HDB15 pin Male to Male

Product Details

4 port Rack Mount KVM Switch:

8 port Rack Mount KVM Switch:

16 port Rack Mount KVM Switch:

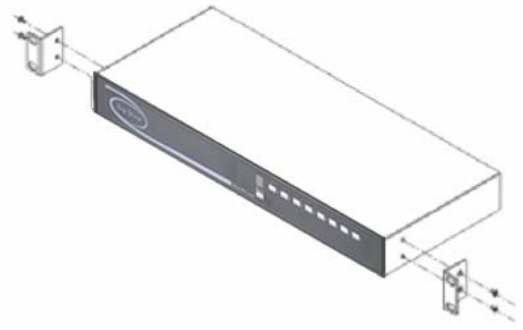


Hardware Installation

Before installation, please make sure all of peripherals and computers have been turned off. This example of installation is based on 8 port Rack Mount KVM Switch and you also can think that 4 port Rack Mount KVM Switch and 16 port Rack Mount KVM Switch have the same installation procedure.

Step 1

Find a convenient place to put your KVM Switch. Its 19” rack mount form factor makes it ideal mountable on 19” rack. When mounting to a rack, attach the included brackets to the sides of the KVM Switch. Take note of the length of your cables so that your computers, KVM Switch, keyboard, mouse and monitor are distanced properly.



Step 2

Connect the monitor to the KVM Switch. Using the attached cable, or the one included with your monitor, connect it to the HDDB-15 female port on the back of the KVM unit labeled with the monitor symbol at the CONSOLE connector.

Step 3

Connect the keyboard to the KVM Switch. If you have an AT type keyboard, you will need an AT to PS/2 adapter.

Step 4

Connect the mouse to the KVM Switch.

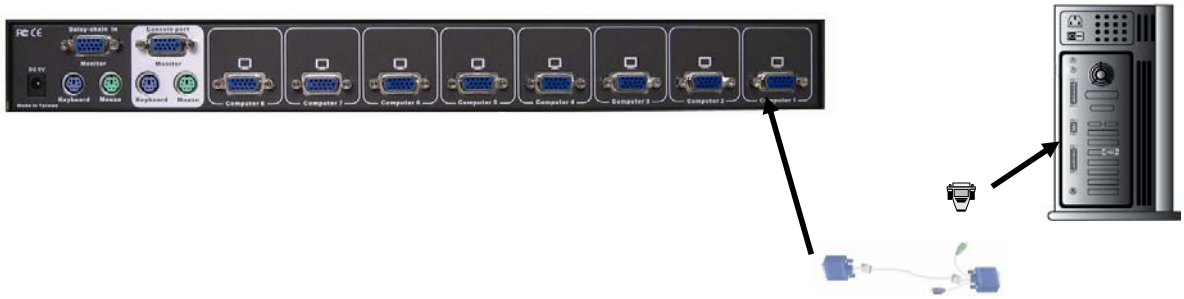
Step 5

Each PC port connector is HDDB-15 pin type. Locate your input cable. It will have a HDDB-15 pin male connector at one end. Plug it into any label computer port on the rear of KVM switch unit. The other end of input cable will have three connectors: a HDDB-15 pin male type for PC video, a Mini Din 6 pin female type for keyboard and a Mini Din 6 pin female type for mouse. To plug these three connectors into the respective ports of computer. Repeat the same procedure to all of PCs.

Step 6 (Optional)

If using a serial mouse cable (optional), connect one end to a DB-9 serial port on the computer, and the other Mini Din 6 pin end to the mouse cable connector. If you need Serial DB-9 to PS/2 Mini Din 6 pin adapter, please contact your supplier.

The Rear Side of PC



Step 7 (Optional)

If your computer has an AT type keyboard port (Din 5 pin), you will need a PS/2 to AT keyboard adapter.

The Rear side of PC

Step 8

Double-check all of the connections. You can check the color of keyboard and mouse connector to make sure the keyboard and mouse cables go to the correct ports.

Step 10

Attach the power supply to the KVM unit and plug the other end into an electrical receptacle. Now you will see the LED for Port 1 light up, and you will hear a beep. Switch on your monitor.

NOTE:

Please be remind to plug in power adapter. Although the PCs connected to KVM Switch are able to support enough power to the stand alone switch, KVM Switch still needs a power adapter for daisy chain more banks. If you forgot to plug in power adapter on the status of daisy chain, it may cause the unexpected status occurred.

Usage

The power on state of 4/8/16 port KVM switch:

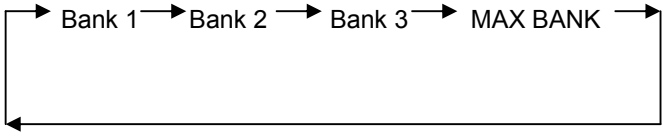
When you power on KVM switch, it will ask you the password, **the default password value is eight zero –“ 00000000 “**. Please key in eight zero and enter the same value at retype field.

Note: Before you are not familiar with the operation of OSD manual, please don't change the password – i.e. keep default eight zero (00000000) value. Otherwise, if you have set the password and unfortunately forget the password, you need send it back to your distributor for maintaining the password.

The Push Buttons **:**
Pressing the individual button cyclically through all the ports or the respective button to get PC port you want.

PC port LED Indication :
You can press the button in order like mentioned-above diagram.
When you select the PC port and this PC is shut down or this PC port is disconnected to the PC, the selected PC port LED will flash. When you select one of eight PCs ports and this PC is powered on, the selected PC port LED is lit.

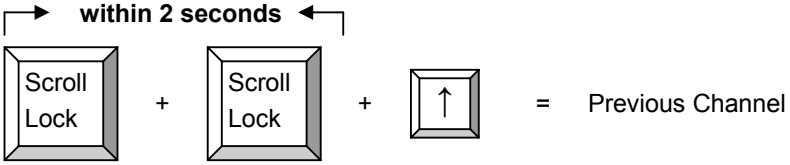
7-Segment BANK LED Indication
When you would like to view the next bank KVM switch, please press " BANK " push button cyclically to the destination bank. The bank LED will be changed from bank 1 to the maximum daisy chain level and then to press " BANK " push button once back to the bank 1.



Reset Button ((" Bank " button) and (" PC 1 " button) **):**
To press both "PC1" button and "bank" button of master bank simultaneously can reset KVM switch. This reset action will not only return KVM switch back to initial state --- Check the password, but also re-check all of slave banks which connected to mast KVM Switch.
If you add a new KVM Switch as a slave bank, please use reset button of master KVM Switch to automatically assign a new ID to it. You can view this new slave bank go through OSD menu. The PC ports of KVM Switch does not be reset by reset command.

Keyboard Hot Key Commands:
You can also conveniently command KVM switch by switching ports through simple key sequences. To send commands to KVM switch, **the "SCROLL LOCK" key must be pressed twice within 2 seconds.** You will hear a beep for confirmation and the keyboard is in hot key mode. If you have not pressed any key in hot key mode within 2 seconds (It means to key in any key follows up "Scroll Lock" "Scroll Lock" key), the keyboard will back to under Operation System control state.

Below are the different hot key commands:



Scroll Lock + Scroll Lock + ↓ = Next Channel

(Note: You also could press “up arrow key” or “down arrow key” longer time to speed up selecting the destination port)

Scroll Lock + Scroll Lock + Page Up = Previous Bank

Scroll Lock + Scroll Lock + Page Down = Next Bank

To select PC port:

Scroll Lock + Scroll Lock + Bank No 1~8 Port No 0 or 1

Port No.
1~4 (4 port)
1~8 (8 port)
1~16 (16 port)

Scroll Lock + Scroll Lock + B = Beeper

(Note: The default Beeper function is ON and beeper control is only for available for Scan Mode)

Scroll Lock + Scroll Lock + S = Auto Scan

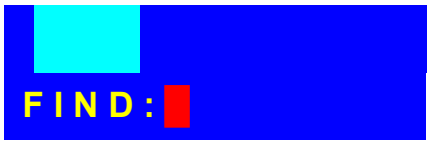
To get out of Auto Scan Mode, Press any key or SPACE bar.

Scroll Lock + Scroll Lock + R = OSD setting back to factory default value

(Note: Not including password)

Scroll Lock + Scroll Lock + F = Search the same PC name

(Note: Search PC name starting from 1st PC port)



Scroll Lock + Scroll Lock + Space bar = On Screen Display Menu

Example：

A. To access a computer attached to Port 4 of the three Bank. You can press through hot key as below:

   Scroll lock + Scroll lock + 3 + 04

B. To access a computer attached from Bank 3 to Bank 4, You can press through hot key as below:

   Scroll lock + Scroll lock + Page Down

Note:

Bank no. and Port no. selection must be made using the numeric keys on the keyboard. Numeric keys on the keypad are not available as a hot key command.

Daisy Chain Connection Diagram

Please use the attached 3 feet 3-in-one daisy chain Cable Kit to daisy chain the KVM Switch.

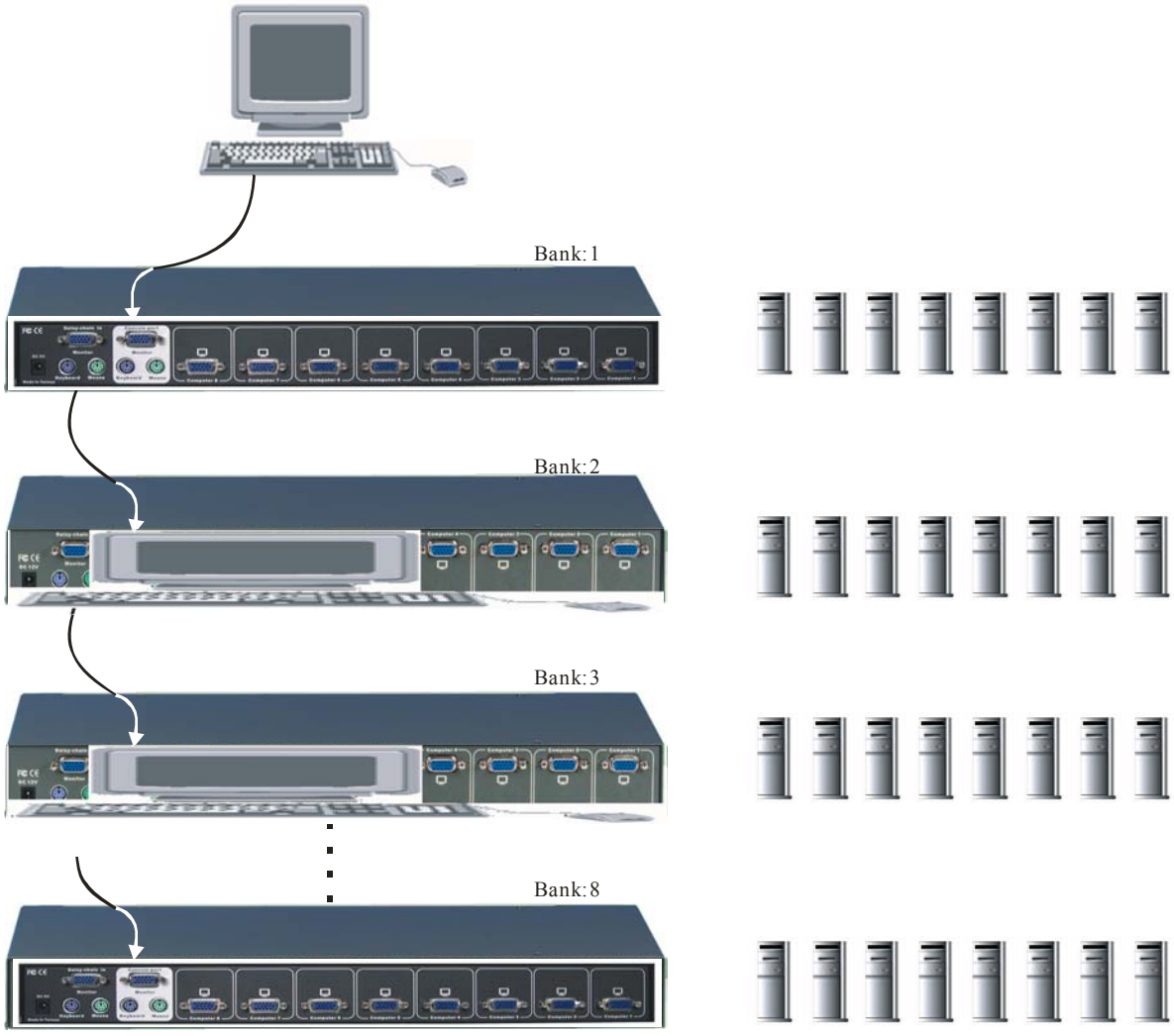
A. Connect Keyboard, Mouse and Monitor to the console port (white color block) of bank 1 KVM switch.

B. Use one end of 3-in-one Cable Kit to connect the daisy chain port of bank 1 and the other end for the console port (white color block) of bank 2 KVM switch.

C. Please repeat item B to daisy chain more bank as you want. But, the maximum daisy chain bank is eight levels.

D. Before chaining the slave bank up to six banks, you need a VGA extender between the fifth bank and the sixth bank to enhance the VGA signal.

(Note: If you would like to daisy chain 8 port and 16 port PS/2 or USB KVM Switch together, the master bank must be 16 port PS/2 or USB KVM Switch)



Maximum 8 Levels

Hot Plug

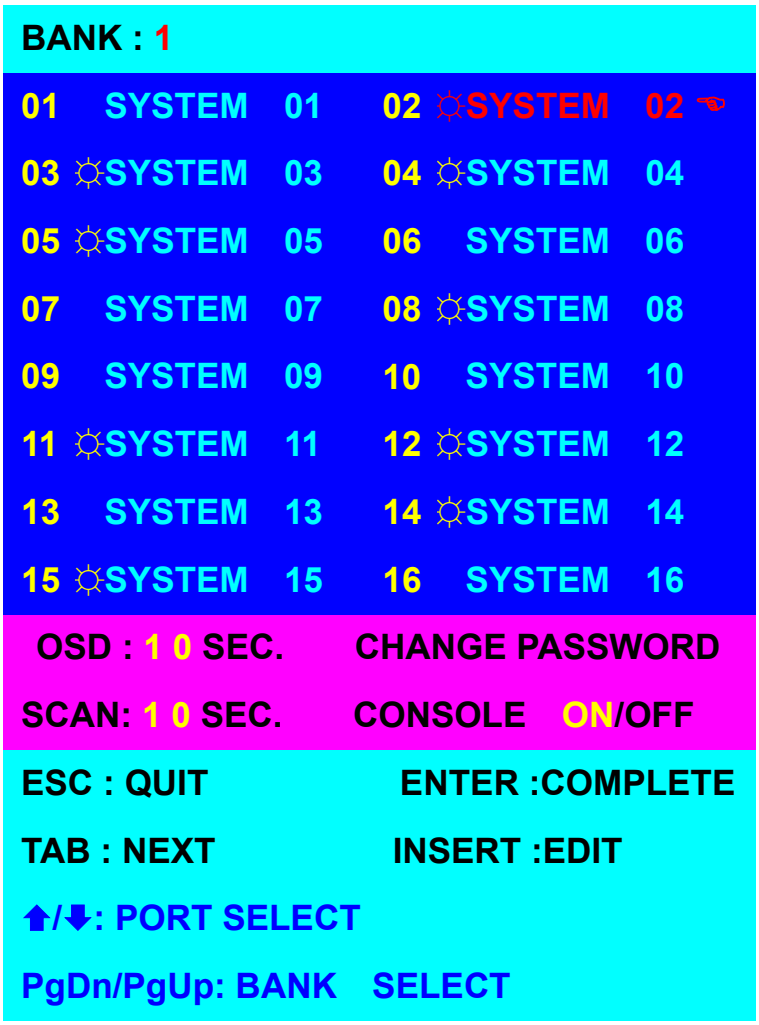
The KVM Switch supports “Hot Plug“ function for easy addition or removal of PCs. The user can arrange or maintain PCs as follows:

a. A PC can be disconnected and reconnected to the same or different port of the KVM unit without having to power it off as long as it is not the Daisy-chain port or pass through port.
b. The pass through port PC (i.e. The pass through port means the console port is connected to PC directly) is powered on. Before you go hot plug function, please switch to this pass through port to next port (or say emulation port) and then switch back to the pass through port.
c. You may unplug the mouse or the keyboard from the console port and plug it back in at any time.

NOTE:
Some O.S. (Operation Systems) like SCO Unix are unable to support “ Hot Plug ” function. If you apply “Hot Plug” to this kind of O.S., it will cause unpredictable behavior or shut down the PC. Before attempting to use “ Hot Plug ” , please make sure your O.S. and mouse software driver supports the “Hot Plug” function.

On Screen Display Operation

1. OSD menu can be popped up in powered on PC port or non-powered on PC port or empty PC port. The resolution of OSD menu is fixed to 1024X768 for non-powered on PC port or empty PC port.
2. When you pop up the OSD menu window go through the hot key, you will see the following small window on your monitor.

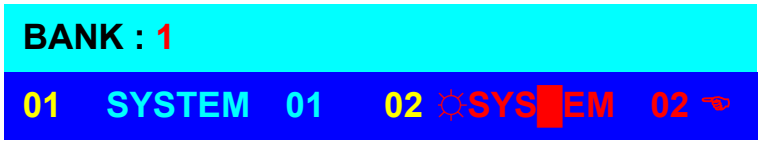


a. The 1ST line bar is Bank no.

b. The 2nd block is your PC system name list. You will find the system number list from 01 to 04 (if the current box is 4 port) or from 01 to 8 (if the current box no. is 8 port)or from 01 to 16 (if the current box no. is 16 port). You can define your PC name in maximum 8 characters. The factory default of 16 port KVM switch PC name is from “SYSTEM 01”, “SYSTEM 02” ,…, “SYSTEM 16” and 8 port KVM switch is from “SYSTEM 01”, “SYSTEM 02”,…, “SYSTEM 08”. Besides, the sun symbol “ ☼ “ near to the PC name represents the PC system is powered on.

To use up arrow key “ ⬆ “ or down arrow key “ ⬇ “ to select port for destination PC name. After you have selected the PC port already, you can press the ENTER Key to switch the PC port you want immediately

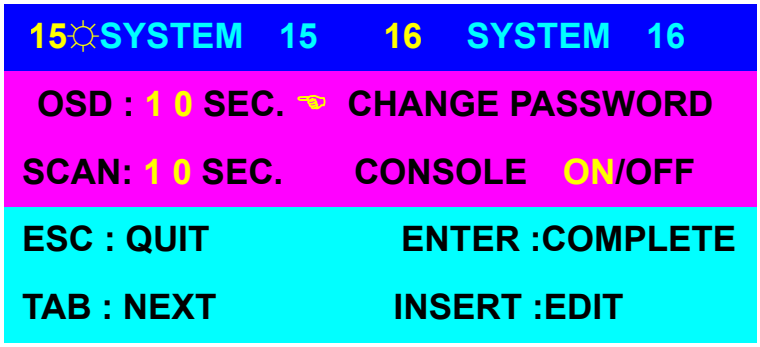
To use “ PgUp “ key or “ PgDn” key for selecting previous or next Bank no. (or Box No.)



To press “ INS” key for editing PC name.

After finishing the edit, please press “ Enter “ key for saving information.

To use “ Tab “ key to select items like Bank, OSD, SCAN, CHANGE PASSWORD, CONSOLE ON/OFF, etc…



a. The “ OSD: 10 SEC” means that the PC system name exists 10 sec on your monitor. You can modify it from 05 sec to 99 sec. The factory default value is 10 sec..

b. The “ SCAN TIME” means that scan interval from one PC port to next PC port. The default SCAN time is 10 sec and the maximum scan time is 99 sec.

c. The “ CHANGE PASSWORD” is for user to avoid all PC systems to be intruded by the other person. The default password is 8 digits “ 00000000 “.

There is an enter password window showed out when you select this item and then press the Enter. The maximum password is eight digits. After you key in the password already and press the Enter key, there is another window for confirming your typed password.

You need to retype the password again for rechecking your previous key-in password is matched or not.

d. The “ CONSOLE ON/OFF “ means to manage the console of KVM switch. If you select “ CONSOLE ON “, it means that any user can use the console. If you select “ CONSOLE OFF “(factory default OFF state), it means that any user will not be allowed to use the console unless you enter the password. When you enter the password already and pass the KVM switch authentication, the CONSOLE will be set

to ON. After you finish using KVM switch, please don't forget to set up CONSOLE ON state to OFF state. Besides, if current CONSOLE is ON state and you reset KVM switch, the CONSOLE will be set up ON state back to OFF state.

e. When you finish the set up of PC name and get out of OSD setting mode, you will find the PC name showed at the up-left corner of monitor. Now, you can use ESC key to clear the message right away if you don't need it.

f. If you want OSD returning back to factory default value, you can execute "SCROLL LOCK", "SCROLL LOCK" , "R" keys in order. The bank seven segment LED on the front panel will be flashed during the refresh process.

When the OSD value back to default setting, the bank seven segment LED on the front panel will stop flashing

Troubleshooting

1. Ensure that all cables are well seated. Label all of cables with the number for each respective computer to avoid confusion.

2. The recommended VGA cable distance is 5 meters maximum without ghosting and degradation. Normally, the cable length is based on driver capacity of your VGA card. If you need longer VGA cable, please use VGA extender to accomplish your applications.

3. The recommended PS/2 cable distance is 5 meters maximum. Normally, the cable length is based on driver capacity of your motherboard PS/2 port. If you need longer PS/2 cable, please use PS/2 extender to accomplish your applications.

4. The Power Jack polarity is center positive and the power adapter need be DC12V, 1A

5. Don't press any keys on the keyboard while the selected computer is booting up. Otherwise, it might cause the keyboard error or keyboard is not detected at PC side.
6. The computer boot up fine, but keyboard doesn't work

- Make sure the keyboard works when directly plugged into the computer.
- Try a different keyboard, but use only 101, 102 or 104-key keyboard.

7. The Mouse is not detected during PC boot up.

- Make sure the mouse works when directly plugged into the computer.
- Make sure the mouse is a true PS/2 mouse. A combo mouse will work just as long as it is set for PS/2 mode with the correct adapter. Try a different mouse.
- Avoiding moving the mouse or pressing the mouse buttons when switching ports.
- Avoiding switching ports during shutting down the PC process.
- When you switch one PC port to another PC port, the best scan time setting need to be set to 5 sec. or more. Normally, the VGA monitor change one resolution mode to

another will take one or two seconds. So, the scan time is not recommended to below 5 seconds.

8. The power switch is off, but the switch still works fine or power adapter is unplugged from the switch, but the switch still works fine.
   KVM Switch unit draws the power source from power adapter and all PC's PS/2 port. Some PC's PS/2 port can support enough power for the switch, but some PC's PS/2 port (like laptop, notebook computer…etc.) is unable to supply enough power for the switch. In order to make sure the system can work steadily, please do not set power switch to off state or remove the power adapter from the switch.

   Although the PCs connected to KVM Switch unit are able to support enough power to the stand alone switch, KVM Switch unit still needs a power adapter for daisy chain more banks.

9. If forgetting the " password " you typed, please contact your supplier.

CERTIFICATIONS

FCC

This equipment has been tested and found to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received. Including interference that may cause undesired operation.

CE – Certificate

This equipment is in compliance with the requirements of the following regulations: EN 55 022: CLASS B

BMN006800A00